

## BROAD SPECIFICITY DNA DAMAGE ENDONUCLEASE

## CROSS REFERENCE TO RELATED APPLICATIONS

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The present application claims priority from U.S. Patent Application 09/327,984, filed *, now U.S. Patent 6,368,594,* June 8, 1999 which priority claims from U.S. Provisional Application No. 60/088,521, filed June 8, 1998, and from U.S. Provisional Application No. 60/134,752, filed May 18, 1999.

## ACKNOWLEDGMENT OF FEDERAL RESEARCH SUPPORT

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## BACKGROUND OF THE INVENTION

The field of the present invention is the area of DNA repair enzymes. In particular, the invention concerns the identification of stable ultraviolet DNA endonuclease polypeptide fragments, their nucleotide sequences and recombinant host cells and methods for producing them and for using them in DNA repair processes.

15 The integrity of its genetic material must be maintained in order for a biological species to survive. However, DNA is continuously subject to damage by endogenous and exogenous agents that can lead to mutations, neoplasia or cell death [Smith et al. (1996) *Biochemistry* 35:4146-4154; Brash et al. (1991) *Proc. Natl. Acad. Sci. USA* 88:10124-10128]. One potential source of mutations is nucleotide misincorporation by DNA polymerases during DNA replication